

1 Claims

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3 1. Method for transferring data between a first computer (1)
4 and a second computer (2), wherein:

5 - quality-reducing events resulting in a deterioration in
6 the quality of the transferred data are detected;
7 - the quality-reducing events are logged;
8 - the first computer (1) being a server and the second
9 computer (2) being a client;
10 - at least some of the quality-reducing events being
11 detected in the client and reported to the server by
12 means of a feedback message;
13 - at least some of the quality-reducing events being
14 detected in the server.

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16 2. Method according to Claim 1, wherein digitized video
17 images are transmitted and the following quality-reducing
18 events are detected:

19 - freezing of video images;
20 - artifacts in video images;
21 - reduction in the sharpness of video images.

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23 3. Method according to Claim 1 or 2, wherein the costs to be
24 paid by a user for data transfer are calculated as a
25 function of the logged quality-reducing events.

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27 4. Method according to one of the preceding Claims, wherein
28 the feedback message contains quantifying measures by
29 means of which the particular quality-reducing event is
30 categorized and/or specified.

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32 5. Method according to one of the preceding Claims, wherein
33 the RTP/RTCP protocol (RTP = Real Time Protocol; RTCP =

1 Real Time Control Protocol) is used and the feedback
2 message is communicated in the RTCP protocol.

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4 6. Method according to one of the preceding Claims, wherein
5 the feedback message contains one or more bits,
6 specifically one byte.

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8 7. Method according to one of the preceding Claims, wherein
9 the transmitted data rate is detected by the server and
10 the data rate received at the client is detected by the
11 client and reported to the server, the server detecting a
12 quality-reducing event if the difference between the
13 received and transmitted data rate exceeds a predetermined
14 value.

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16 8. Method according to one of the preceding Claims, wherein
17 data losses are detected by the client which reports them
18 to the server, the server detecting the occurrence of a
19 quality-reducing event as a function of the size of the
20 data losses.

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22 9. Method according to Claims 7 or 8, wherein the RTP/RTCP
23 protocol (RTP = Real Time Protocol; RTCP = Real Time
24 Control Protocol) is used and the received data rate
25 detected by the client and/or the data losses detected by
26 the client are communicated in the RTCP protocol.

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28 10. Method according Claim 8 or 9, wherein the client has a
29 buffer whose size is known to the server, said server
30 being informed by the client in the event of data losses
31 as to what data has been lost, wherefrom the server
32 calculates the occupancy level of the buffer and

1 determines thereby the occurrence of quality-reducing
2 events.

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4 11. Method according to Claim 10, wherein the RTP/RTCP
5 protocol (RTP = Real Time Protocol; RTCP = Real Time
6 Control Protocol) is used and the information as to what
7 data has been lost in the event of data losses is
8 communicated to the server via an extension in the RTCP
9 protocol.

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11 12. Method according to one of the preceding Claims, wherein
12 the quality-reducing events detected in the server and in
13 the client are compared and only the quality-reducing
14 events that were detected by both the server and the
15 client are logged.

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17 13. Method according to one of the preceding Claims, wherein
18 the data is transmitted in the form of data packets,
19 specifically via the IP protocol (IP = Internet Protocol).

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21 14. Data network, comprising at least one first and at least
22 one second computer, the data network being designed such
23 that data can be transmitted between the first and the
24 second computer according to a method as claimed in one of
25 the preceding Claims.

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27 15. Data network according to Claim 14, wherein the data
28 network comprises an IP network (IP = Internet Protocol)
29 and/or a UMTS network (UMTS = Universal Mobile
30 Telecommunications System) and/or a WLAN network (WLAN =
31 Wireless Local Area Network).

1 16. Computer program product which has a storage media on
2 which a computer program is stored with which a method
3 according to one of Claims 1 to 13 is carried out when the
4 computer program is run on a computer.